Art. I.—*Monographia Chalciditum.* By Francis Walker.

(*Continued from* Vol. III. *page* 496.)

" ——— the green myriads in the peopled grass."

Pteromalus.

Sectio XLIX.—Mas et Fem.

Gastracanthus et Hetroxys, *Westwood.*

Mas.—Caput magnum, thorace latius: antennæ filiformes, hirti, corpore paullo breviores; articuli 5°. ad 10um. longitudine decrescentes; clava fusiformis, acuminata, articulo 10°. multo longior: mandibulæ quadratæ, subarcuatæ; una 4-dentata, dens externus mediocris incurvus acutus, 2us. 3us. et 4us. breves obtusi; altera 3-dentata, dens externus major incurvus acutus, 2us. mediocris subacutus, 3us. brevis latus obtusus: maxillæ breves; laciniæ longæ, angustæ, subarcuatæ, acuminatæ, lobatæ; palpi 4-articulati, subclavati, articuli 1us. 2us. et 3us. breves subæquales, 4us. fusiformis longior: labium breve, obconicum; ligula brevis, antice lata et ciliata; palpi 3-articulati breves crassi, articulus 2us. brevissimus: thorax ovatus: prothorax brevis: mesothoracis parapsides convexæ, prominentes; suturæ conspicuæ: metathorax mediocris: abdomen cochleatum, planum, thorace paullo longius; segmentum 1um. longum, 2um. et sequentia breviora subæqualia: pedes subæquales: alæ amplæ; nervus humeralis ramulum brevem rejiciens; radialis cubitali ramulum brevissimum emittente plus duplo longior.

Fem.—Antennæ clavatæ, corporis dimidio longiores; articuli 5°. ad 10um. longitudine decrescentes; clava ovata, articulo 10°. paullo latior et duplo longior: abdomen fusiforme, thorace paullo angustius et dimidio aut duplo longius, apicem versus attenuatum acuminatum pubescens, non angulatum; segmenta subæqualia: oviductus dum quietem agit occultus.

Sp. 164. Pter. pulcherrimus. Fem. *Viridi-æneus, abdomen cupreum subtus rufum, antennæ nigræ, pedes flavi, proalis fasciæ 2 fuscæ.*

Gastracanthus pulcherrimus, *Westwood, Loudon's Mag. Nat. Hist.* VI. 121.

Caput viridi-æneum, supra cupreum: oculi ocellique rufo-picei: antennæ nigræ; articulus 1us. pallide fulvus; 2us. nigro-æneus:

thorax obscure æneo-viridis, subtus cupreus : abdomen cupreum, subtus rufum : pedes pallide flavi ; ungues et pulvilli fusci : alæ limpidæ ; proalæ cujusque disco fasciæ 2 fuscæ, abbreviatæ, enormes, medio connexæ ; squamulæ et nervi fulva ; stigma minutum. (Corp. long. lin. $2\frac{3}{4}$; alar. lin. $4\frac{1}{2}$.)

September ; near London. North Wales.

Sp. 165. Pter. scenicus. Mas et Fem. *Viridis aut æneus, abdomen cupreum plerunque basi et subtus rufum, antennæ nigræ, pedes rufi aut fulvi, metafemora nonnunquam supra fusca, proalæ sæpissime fusco nebulosæ.*

Mas.—Caput viride : oculi ocellique rufo-picei : antennæ nigræ ; articulus 1us. fulvus, apice fuscus ; 2us. nigro-viridis : mandibulæ rufæ : maxillæ et labium viridia : palpi, laciniæ et ligula flava : thorax viridis ; segmentorum suturæ æneo-virides : abdomen cupreum, basi et subtus rufum : pedes pallide rufi ; coxæ virides ; meso- et metatarsi flavi, apice fulvi : alæ subfuscæ ; proalæ fusco nebulosæ ; squamulæ et nervi obscure fulva ; stigma parvum.

Fem.—Caput postice æneum : antennis articulus 1us. fulvus ; 2us. viridi-fuscus : thorax viridi-æneus : mesothoracis scutellum æneo-cupreum : abdominis segmentum 1um. viridi-varium : oviductus rufus : pedes læte fulvi ; coxæ virides ; meso- et metatarsi flavi ; ungues et pulvilli fusci : alarum squamulæ et nervi fulva. (Corp. long. lin. $1\frac{1}{4}$—2 ; alar. lin. $1\frac{3}{4}$—$2\frac{1}{2}$.)

Var. β.—*Mas*, caput et thorax cyaneo-viridia.

Var. γ.—*Mas*, thorax æneo-viridis ; mesothoracis scutellum æneum.

Var. δ.—*Mas*, abdomen omnino cupreum : antennis articulus 1us. nigro-viridis, basi fulvus : proalæ non nebulosæ.

Var. ε.—*Mas*, *Var.* δ. similis : caput et thorax omnino viridia : abdomen ante medium et subtus obsolete fulvum : metafemora apice supra fusca.

Var. ζ.—*Mas*, metafemora supra viridi-fusca.

Var. η.—*Mas*, caput et thorax viridia : abdomen cupreum.

Var. θ.—*Mas*, *Var.* η. similis : abdomen basi et subtus fulvum : pedes pallide fulvi : alæ sublimpidæ.

Var. ι.—*Fem.* antennis articulus 1us. fuscus, basi et subtus fulvus ; 2us. nigro-viridis.

Var. κ.—*Fem.* metathorax cyaneo-viridis.

Var. λ.—*Fem.* thorax viridis: mesothoracis scutellum æneum: abdominis rufum vix conspicuum.

Var. μ.—*Fem.* abdomen supra viride, apice cupreum.

June to August; near London. Hampshire, &c. Found in Ireland by Mr. Haliday.

Sp. 166. Pter. invenustus. Mas. *Nigro-viridis*, P. scenico *minor obscurior, abdomen nigro-cupreum, antennæ nigræ, pedes fusci, alæ fuscæ.*

Caput et thorax nigro-viridia: oculi ocellique rufo-picei: antennæ nigræ; articulus 1us. viridi-fuscus, basi fulvus; 2us. nigro-viridis: abdomen nigro-cupreum: pedes fusci; coxæ virides; pro- et mesopedum tibiæ et tarsi fulva: proalæ fuscæ; squamulæ et nervi fulva; stigma parvum; metalæ subfuscæ. (Corp. long. lin. 1; alar. lin. $1\frac{1}{2}$.)

Var. β.—Metatarsi basi fulvi.

June; near London. Hampshire.

Sp. 167. Pter. macromerus. Mas. P. scenico *similis at gracilior, alæ longiores angustiores.*

Caput viridi-æneum: oculi ocellique rufo-picei: antennæ nigræ; articuli 1us. et 2us. nigro-virides, ille basi fuscus: thorax viridi-æneus: abdomen cupreum: pedes pallide fulvi; coxæ virides: alæ sublimpidæ; proalæ fusco obsolete nebulosæ; squamulæ et nervi fulva; stigma minimum. (Corp. long. lin. $1\frac{3}{4}$; alar. lin. $2\frac{1}{4}$.)

Found near London.

Sp. 168. Pter. stenogaster. Fem. P. scenico *similis, antennæ breviores, abdomen minus attenuatum. Viridi-æneus, abdomen cupreum subtus basi fulvum, antennæ nigro-fuscæ, pedes flavi aut fulvi, tibiæ nonnunquam fuscæ, proalæ subfulvæ.*

Caput æneo-viride: oculi ocellique rufo-picei: antennæ nigro-fuscæ; articulus 1us. fulvus, subtus flavus; 2us. fusco-æneus; thorax viridi-æneus; latera viridia: abdomen cupreum; segmentum 1um. læte viride, subtus fulvum: pedes flavi; coxæ virides; femora et protarsi fulva: proalæ subfulvæ; squamulæ et nervi fulva; stigma minutum; metalæ sublimpidæ. (Corp. long. lin. $1\frac{1}{2}$– $1\frac{3}{4}$; alar. lin. $1\frac{3}{4}$—2.)

Var. β.—Caput viride: antennis articulus 1us. fulvus, apice fuscus: thorax æneo-viridis.

Var. γ.—Tibiæ et tarsi fulva.

Var. δ.—*Var.* β. similis: mesothoracis scutellum cupreum: abdominis segmentum 1um. supra cupreum: tibiæ fulvæ.

Var. ε.—*Var.* δ. similis: caput et thorax cuprea.

Var. ζ.—Caput cyaneo-viride: antennis articulus 1us. fulvus, apice fuscus, thorax viridis; discus æneus: abdomen basi supra cyaneum: tibiæ fuscæ: alarum squamulæ et nervi obscure fulva; stigma pallide fuscum.

July; near London.

Sp. 169. Pter. præpileus. Fem. P. scenico, *sæpissime minor, antennæ graciliores plus clavatæ. Viridis, abdomen cupreum, antennæ fuscæ, pedes fulvi, alæ sublimpidæ.*

Caput et thorax viridia: oculi ocellique rufo-picei: antennæ obscure fuscæ; articulus 1us. fulvus; 2us. pallide fuscus: abdomen cupreum: pedes pallide fulvi; coxæ virides; meso- et metatarsi flavi, apice fulvi: alæ sublimpidæ; squamulæ et nervi pallide fulva; stigma minutum. (Corp. long. lin. $1\frac{1}{4}$; alar. lin. $1\frac{1}{2}$.)

Found near London.

Sp. 170. Pter. dimidiatus. Fem. *Viridi-æneus, præcedentibus brevior, abdomen cupreum, antennæ et pedes fusca, femora viridia, alæ limpidæ.*

Caput viride: oculi ocellique rufo-picei: antennæ fuscæ; articulus 1us. fulvus, apice fuscus; 2us. viridi-fuscus: thorax æneo-viridis; discus cupreus: abdomen cupreum, subtus viride cupreo fasciatum; segmentum 1um. læte viride, cupreo varium: pedes fusci; coxæ et femora viridia, hæ apice basique fulva; tarsi basi fulvi: alæ limpidæ; squamulæ et nervi fulva; stigma fuscum, mediocre. (Corp. long. lin. $1\frac{1}{2}$; alar. lin. 2.)

Found near London.

Sp. 171. Pter. fuscescens. Fem. *Viridi-æneus,* P. dimidiato *brevior, abdomen cupreum basi et subtus rufum, pedes flavi aut fulvi, alæ limpidæ.*

Caput obscure viride: oculi ocellique rufo-picei: antennæ nigro-fuscæ; articulus 1us. fulvus; 2us. fusco-fulvus: thorax obscure

viridi-æneus: abdomen cupreum, basi et subtus rufum; segmentum 1um. viridi micans: pedes flavi; coxæ virides; femora pallide fulva; ungues et pulvilli fulvi: alæ limpidæ; squamulæ et nervi pallide fulva; stigma minutum. (Corp. long. lin. $\frac{3}{4}$—$1\frac{1}{4}$; alar. lin. 1—$1\frac{1}{2}$.)

Var. β.—Caput læte viride: thorax æneo-viridis: proalæ subfulvæ.

Var. γ.—Thorax æneus: proalæ subfulvæ.

Var. δ.—Tibiæ et protarsi fulva; femora obscuriora: proalæ subfulvæ.

Var. ε.—*Var.* δ. similis: metathorax viridis.

Var. ζ.—Caput et thorax viridia.

Var. η.—Abdomen basi supra cupreum.

Var. θ.—Antennis articulus 1us. fuscus; 2us. fusco-æneus: metafemora fusca; tibiæ et protarsi fulva: proalæ subfulvæ.

Var. ι.—*Var.* θ. similis: metatibiæ fuscæ.

Found near London.

Genus XIV.—Cheiropachus, *Westwood.*

Mas.—Caput mediocre, thoracis latitudine: antennæ filiformes, graciles, corporis dimidio paullo longiores; articuli 5o. ad 10um. curtantes; clava fusiformis, acuminata, articulo 10o. multo longior: mandibulæ quadratæ; una 4-dentata, arcuata, dens externus acutus incurvus sat longus, 2us. et 3us. minores obtusiores, internus brevis latus obtusus; altera 3-dentata, subarcuata, dens externus acutus incurvus sat longus, 2us. brevior latior subacutus, internus latus obtusus: maxillæ latæ, sat longæ; laciniæ angustæ, subarcuatæ, acuminatæ, intus lobatæ; palpi 4-articulati subclavati, articuli 1us. 2us. et 3us. breves subæquales, 4us. longior fusiformis: labium angustum, fusiforme; ligula brevis, antice lata et ciliata; palpi 3-articulati breves lati, articulus 2us. brevissimus: thorax sublinearis, parum convexus, basi et apice angustatus: prothorax brevissimus: mesothoracis parapsidum suturæ vix conspicuæ: metathorax mediocris: abdomen lineare, thorace paullo brevius et angustius; segmenta transversa, 1um. magnum, sequentia breviora subæqualia: sexualia vix conspicua: femora valida: alæ mediocres; nervus humeralis ramulum rejiciens obsoletum, radialis cubitali plus duplo longior.

Fem.—Caput sat magnum, thorace paullo latius: antennæ extrorsum crassiores, corporis dimidio vix longiores; articuli 5o. ad 10um.

curtantes, vix latescentes ; clava longi-ovata, acuminata, articulo 10°. paullo latior et fere duplo longior : thorax ovatus, convexus : abdomen longi-ovatum, acuminatum, thorace longius, subtus carinatum, apice pubescens : oviductus rima ventrali occultus.

Sp. 1. Cheir. quadrum. Mas et Fem. Mas. *Viridis, abdomen cupreum fulvo maculatum, antennæ fuscæ, pedes fulvi, proalis maculæ 2 fuscæ.* Fem. *Cupreus, abdomen immaculatum, antennæ nigro-fuscæ, pedes quam* mari *obscuriores.*

Diplolepis quadrum . . *Fabr. Syst. Piezat.* 152.
Cleonymus maculipennis . *Curtis, Brit. Ent.* IV. 194.
Cheiropachus quadrum . *Westwood, Zool. Journ.* IV. Pl. 2, fig. 2.

Mas.—Læte viridis, cupreo varius : oculi ocellique rufo-picei : antennæ fuscæ ; articulus 1us. fulvus : abdomen cupreum, basi læte viride, medium ante fulvo maculatum : pedes fulvi ; coxæ virides ; meso- et metatarsi flavi, apice fusci : alæ albo limpidæ ; squamulæ et nervi fulva ; stigma minutum ; proalæ cuique maculæ 2 quadratæ nigro-fuscæ, una ad nervi ulnaris apicem, altera apud stigma major.

Fem.—Obscure cupreus : caput antice et subtus æneo-viride : oculi ocellique rufo-picei : antennæ nigro-fuscæ ; articulus 1us. fulvus, 2us. fusco-viridis : abdomen æneo-viride ; segmentum 1um. micans cupreo varium ; discus obscure cupreus : pedes obscure fulvi ; coxæ virides ; femora incrassata, subtus denticulata ; tarsi flavi, apice fusci ; protarsi pallide fulvi. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{1}{2}$; alar. lin. 2—$2\frac{1}{4}$.)

Var. β.—*Fem.* caput et metathorax æneo-viridia.

Var. γ.—*Fem.* caput et thorax æneo-viridia : abdomen basi cyaneum.

July, September ; near London. Isle of Wight.

Sp. 2. Cheir. tutela. Mas et Fem. Mas, *viridis aut viridi-æneus, abdomen cupreum flavo maculatum, pedes fulvi, antennæ et femora fusca, proalis macula rotunda nigro-fusca.* Fem. *cupreus, abdomen immaculatum, antennæ nigro-fuscæ, proalis macula major pallidior.*

Mas.—Caput viride, inter ocellos viridi-æneum : oculi ocellique rufo-picei : mandibulæ rufæ : maxillæ virides ; laciniæ fulvæ :

labium et palpi fusca ; ligula flava : antennæ fuscæ ; articulus 1us. fulvus ; 2us. fusco-viridis : thorax viridis ; discus cupreo varius : abdomen cupreum, medium ante flavo maculatum, apice viridi-æneum : pedes fulvi ; coxæ virides ; meso- et metafemora et metatibiæ pallide fusca ; tarsi flavi, apice fusci ; protarsi obscuriores : alæ limpidæ ; squamulæ et nervi fulva ; stigma minutum ; proalæ cuique macula apud stigma rotunda nigro-fusca.

Fem.—Caput cupreo-æneum, antice viridi-æneum : antennæ nigro-fuscæ ; articulus 1us. fulvus ; 2us. viridi-æneus : thorax et abdomen cuprea, ejus discus obscurior, segmentum 1um. micans viridi varium : pedes fulvi ; coxæ æneæ ; femora fusco cingulata ; meso- et metatarsi flavi, apice fulvi : alarum maculæ quam *mari* majores et pallidiores. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{1}{2}$; alar. lin. 2—$2\frac{1}{4}$.)

Var. β.—*Mas*, caput viride : thorax æneo-viridis ; suturæ cyaneo-virides : metafemora et metatibiæ obscure fusca.

Var. γ.—*Mas*, femora et tibiæ omnino fulva.

Var. δ.—*Mas*, *Var.* γ. similis : thoracis suturæ et metathorax omnino cyaneo-viridia.

Var. ε.—*Mas*, *Var.* γ. similis : thorax æneo-viridis ; mesothorax cyaneo-viridi fasciatus.

Var. ζ.—*Mas*, abdomen nigro-cupreum ; macula flava vix conspicua : profemora fusco cingulata ; metafemora nigro-fusca.

Var. η.—*Fem.* caput et thorax viridi-ænea, illum antice viride, ejus scutum cupreum.

Var. θ.—*Fem.* caput viridi-æneum, antice viride : femora nigro-fusca ; metatibiæ fuscæ.

Var. ι.—*Fem.* alarum maculæ vix conspicuæ.

Var. κ.—*Fem.* caput et metathorax æneo-viridia.

May to September ; on beams of wood perforated by *Anobium*, ash-trees, ivy, &c. ; near London ; North Wales. Found in Ireland by Mr. Haliday.

** *Prothorax productus, antice angustus.*

Genus Trigonoderus, *Westwood*.[a]

Mas.—Corpus squameum, fere glabrum : caput magnum, thorace

[a] Lond. and Edinb. Phil. Mag. and Journ. of Science. Third Series. Vol. I. No. 2, p. 127.

latius, antice non impressum : oculi extantes : antennæ filiformes, pubescentes, 13-articulatæ, corporis dimidio longiores ; articuli 5°. ad 10um. curtantes ; clava fusiformis, acuminata, articulo 10°. multo longior non latior : mandibulæ quadratæ ; una 4-dentata fere recta, dentes breves minuti subacuti ; altera 3-dentata subarcuata, dens externus mediocris subacutus incurvus, 2us. et 3us. lati minuti obtusi : maxillæ breves ; laciniæ longæ, angustæ, acuminatæ, lobatæ ; palpi 4-articulati, subclavati, articuli 1us. 2us. et 3us. breves snbæquales, 4us. longior fusiformis : labium breve, obconicum ; ligula brevis, antice lata et ciliata ; palpi 3-articulati, breves, crassi, articulus 1us. mediocris, 2us. brevissimus, 3us. fusiformis 1°. longior : thorax longi-ovatus : segmenta optime determinata : prothorax magnus, antice attenuatus : mesothoracis scutum angustum ; parapsides discretæ, extantes, convexæ ; scutellum angustum, obconicum : metathorax magnus ; scutellum medio canaliculatum : abdomen cochleatum, planum, fere læve, thoracis longitudine, apicem versus latius ; segmenta 6 subæqualia supra conspicua ; sexualia subexerta : pedes graciles, simplices, subæquales : alæ amplæ ; nervus humeralis ramulum rejiciens brevem, radialis cubitali triplo longior.

Fem.—Caput quam *mari* minus, breve, antice impressum : antennæ graciles, corporis dimidii longitudine, extrorsum vix crassiores ; articuli 5°. ad 10um. curtantes, vix latescentes ; clava longi-ovata, acuminata, articulo 10°. duplo fere longior vix latior : thorax ovato fusiformis, quam *mari* angustior : abdomen lanciforme, thorace longius, apicem versus acuminatum et attenuatum, subtus carinatum et canaliculatum non angulatum nec compressum ; segmenta dorsalia 7 conspicua, 1um. 2um. et 3um. brevia, 4um. longius, 5um. brevius, 6um. 4°. longius, 7um. breve : oviductus ad segmenti 4i. apicem conspicuus, dum quietem agit occultus.

Sp. 1. Tri. pulcher. Fem. *Æneo-viridis, abdomen cupreo fasciatum, antennæ nigræ, pedes rufi, proalis macula sublunaris fusca.*

Caput viride : oculi ocellique rufo-picei : trophi rufi : antennæ nigræ ; articulus 1us. flavus apice supra fuscus ; 2us. viridi-æneus : clava articulo 10°. latior : gula flava : thorax æneo-viridis : abdomen viride, pubescens ; segmenta apice obscure cuprea : pedes pallide rufi ; coxæ virides ; meso- et metatarsi flavi ; ungues et pulvilli fusci : alæ sublimpidæ, fusco obsolete nebulosæ ; squamulæ et nervi obscure fulva ; stigma minutum ; proalæ

macula in cujusque disco sublunaris fusca. (Corp. long. lin. $2\frac{1}{4}$—$2\frac{1}{2}$; alar. lin. $3\frac{1}{2}$—4.)

Var. β.—Mesothorax viridi-æneus.

June; near London.

Sp. 2. Tri. filatus. Fem. P. pulchro *gracilior, alæ longiores et angustiores. Æneo-viridis, abdomen viridi-cupreum basi rufum, antennæ nigræ, pedes rufi, proalis macula fusca.*

Caput cyaneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articulus 1us. fulvus, apice fuscus: trophi rufi: thorax viridis, hic et illuc æneo-viridi varius: abdomen supra cupreum, subtus viride fasciis cupreis, basi rufum; segmentum 1um. læte cyaneo-viride; 2um. et sequentia basi utrinque viridia: pedes pallide rufi; coxæ virides; meso- et metatarsi flavi; ungues et pulvilli fusci: alæ sublimpidæ, fusco obsolete nebulosæ; squamulæ et nervi obscure fulva; stigma minutum; proalæ macula in cujusque disco fusca. (Corp. long. lin. 2—$2\frac{1}{2}$; alar. lin. $2\frac{3}{4}$—$3\frac{1}{2}$.)

Var. β.—Thorax omnino viridis: abdomen basi subtus tantum rufum: metatarsi fusci.

Found near London.

Sp. 3. Tri. tristis. Fem. *Præcedenti similis, abdomen brevius. Æneo-viridis, abdomen cupreum, antennæ nigro-piceæ, pedes fulvi, proalis macula fusca.*

Caput viride: oculi ocellique rufo-picei: antennæ nigro-piceæ; articulus 1us. fulvus, apice fuscus; 2us. viridi-fuscus: thorax æneo-viridis: metathorax viridis: abdomen cupreum; segmentum 1um. cyaneum; 2um. et sequentia basi utrinque viridia: pedes fulvi; coxæ virides; metafemora supra viridi-fusca; tarsi flavi, apice fulvi; ungues et pulvilli fusci: alæ subfuscæ; squamulæ et nervi fulva; stigma minutum; proalæ macula in cujusque disco fusca. (Corp. long. lin. $1\frac{1}{4}$; alar. lin. $1\frac{3}{4}$.)

Found near London.

Sp. 4. Tri. ductilis. Mas et Fem. *Viridis aut æneo-viridis, cyaneo et cupreo varius, antennæ nigræ, pedes fulvi,* mari *femora fusca, alæ limpidæ.*

Mas.—Viridis: caput, pro- et mesothoracis latera et metathorax viridi-cyanea: oculi ocellique rufi: maxillæ et labium viridia:

palpi fusci: ligula et laciniæ flava: antennæ nigræ, pilis albis hirtæ; articuli 1us. et 2us. nigro-virides: gula flava: mesothoracis segmentorum margines æneo-virides; scutellum basi æneo-cupreum: abdomen obscure cupreum, apice et utrinque viridescens; segmentum 1um. basi cyaneo-viride: sexualia flava: pedes fulvi; coxæ virides; femora et metatibiæ supra fusca; meso- et metatarsi apice pallide fusci: alæ limpidæ; squamulæ et nervi obscure fulva; stigma minutum.

Fem.—Læte viridis: antennis articulus 1us. flavus: prothoracis latera, mesothoracis paraptera et metathorax cyanea: mesothoracis scutellum antice et postscutellum cuprea: abdomen æneo-viride, cupreo varium, apice pubescens; segmentum 1um. viridi-cyaneum: oviductus pallide fulvus; vaginæ nigræ: pedes pallide fulvi; tarsi flavi; ungues et pulvilli fusci: alis squamulæ et nervi fulva. (Corp. long. lin. $1\frac{1}{3}$—$2\frac{1}{4}$; alar. lin. $1\frac{3}{4}$—$2\frac{5}{4}$.)

Var. β.—*Mas,* caput viride: mesothoracis scutellum et epimera viridi-ænea: metathorax cyaneus.

Var. γ.—*Fem.* caput cyaneum.

Var. δ.—*Fem.* mesothoracis scutum, epimera et postscutellum viridi-ænea.

Var. ε.—*Fem.* caput et mesothoracis epimera cyaneo-viridia: abdomen viridi-cyaneum; segmenta basi et apice ænea, 1um. cyaneum.

Var. ζ.—*Fem.* capitis vertex cupreo varius: mesothoracis scutellum cupreum: metathorax cyaneo-viridis.

Var. η.—*Fem.* thorax cyaneo-viridis: mesothoracis scutellum et epimera æneo-viridia, illum antice cupreum: abdominis segmenta 2o. ad 7um. viridia, basi et apice obscure ænea.

Var. θ.—*Fem.* metafemora supra pallide viridi-fusca.

Var. ι.—*Var.* θ. similis: metatibiæ obscure fulvæ.

Var. κ.—Caput et thorax viridi-cyanea, ejus segmentorum margines cupreo-ænei: antennis articulus 1us. supra et apice fuscus.

Var. λ.—*Var.* ι. similis: corpus cyaneum: thoracis discus æneo-varius: abdominis segmenta basi obscure cuprea.

Var. μ.—Caput cyaneo-viride: thorax æneo-cupreus: abdomen cupreum; segmentum 1um. cyaneo-viride; 2um. et sequentia viridi-varia.

May and June; on posts and beams of wood perforated by Anobium, &c.

Sp. 5. Tri. affinis. Fem. T. ductilis *similitudine, abdomen brevius. Viridi-cupreus cyaneo varius, antennæ obscure fulvæ, pedes fulvi, femora fusca, alæ limpidæ.*

Caput viride: oculi ocellique rufi: antennæ obscure fulvæ; articulus 1us. fulvus, apice fuscus; 2us. viridi-fuscus: thorax cupreus: prothorax et mesothoracis scutum utrinque viridi-cyanea: metathorax viridis, utrinque cyaneus: abdomen cupreum; segmenta basi viridi-ænea: pedes fulvi; coxæ virides; femora et metatibiæ supra pallide fusca; meso- et metatarsi flavi, apice fusci: alæ limpidæ: squamulæ et nervi flava; stigma fulvum, minutum. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{2}{3}$; alar. lin. $1\frac{3}{4}$—$2\frac{1}{4}$.)

Var. β. — Capitis vertex viridi-æneus: mesothoracis scutellum, paraptera et epimera viridi marginata: abdominis segmentum 1um. læte viride, cupreo varium; 2um. et 3um. basi viridia.

Var. γ.—Prothorax et mesothoracis latera anteriora viridia: metathorax cyaneo-viridis: abdomen cupreum; segmentum 1um. læte cyaneo-viride.

September; near London. North Wales.

Sp. 6. Tri. linearis. Fem. *Viridi-cupreus, cyaneo varius,* T. ductili *angustior, antennæ obscure fuscæ, pedes fulvi, femora et nonnunquam metatibiæ fusca, alæ sublimpidæ.*

Corpus longum, gracile: caput viride, antice cyaneum: oculi ocellique rufi: antennæ obscure fuscæ; articulus 1us. fulvus, apice fuscus: thorax viridis, antice utrinque cyaneo-viridis; discus æneo-cupreus: abdomen cupreum, subtus æneo-viride, basi cyaneum: pedes fulvi; coxæ virides; femora pallide fusca; meso- et metatarsi flavi, apice fusci: alæ sublimpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{3}{4}$; alar. lin. $1\frac{1}{2}$—2.)

Var. β.—Prothorax utrinque purpureo-cyaneus: abdomen basi viride: femora fulvo fusca.

Var. γ.—*Var.* β. similis: antennæ fuscæ: thoracis discus æneo-viridis.

Var. δ.—Thorax viridi-æneus; latera et metathorax viridia; prothorax utrinque purpureo-cyaneus: abdomen cupreum, basi viride: metatibiæ fuscæ.

Found near London.

Sp. 7. Tri. amabilis. Fem. T. affinis *statura, alæ angustiores. Viridi-cupreus, antennæ nigro-fuscæ, pedes fulvi, femora viridi-fusca, metatibiæ fusco cingulatæ, alæ fulvescentes.*

Caput læte viride: oculi ocellique rufi: antennæ nigro-fuscæ; articulus 1us. fulvus, apice fuscus: thorax cupreus, utrinque antice viridis: abdomen viridi-æneum; segmentum 1um. læte viride; 2um. et sequentia apice obscure cuprea: pedes fulvi; coxæ virides; femora viridi-fusca; metatibiæ fusco cingulatæ; meso- et metatarsi apice fusci: alæ fulvescentes; squamulæ et nervi fulva; stigma minutum, obscurius. (Corp. long. lin. $1\frac{1}{2}$; alar. lin. 2.)

October; near London.

Sp. 8. Tri. figuratus. Mas. *Cupreus,* T. ductilis *statura, antennæ nigræ, pedes fulvi, femora fusco vittata, alæ subfulvescentes aut limpidæ.*

Caput æneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1us. et 2us. nigro-virides: thorax cupreus; latera et metathorax viridi-ænea: abdomen nigro-cupreum, basi cupreum, medio obsolete fulvum: pedes fulvi; coxæ virides; femora fusco vittata; meso- et metatarsi flavi, apice pallide fusci: alæ subfulvescentes; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. 1—$1\frac{1}{4}$; alar. lin. $1\frac{1}{2}$—2.)

Var. β.—Caput viride: abdomen basi viridi-æneum: alæ limpidæ.

Var. γ.—*Var.* β. similis: tibiæ flavæ.

Found near London.

Sp. 9. Tri. deductor. Mas. T. ductili *nimis affinis at obscurior et sæpissime multo minor. Viridi-cupreus cyaneo varius, antennæ nigræ, pedes fulvi, femora et nonnunquam tibiæ fusca, alæ subfuscæ aut sublimpidæ.*

Caput viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1us. et 2us. virides: thorax cupreus, antice et utrinque viridis; prothoracis latera cyanea: abdomen nigro-cupreum; segmentum 1um. basi æneo-viride: pedes fulvi; coxæ virides; femora viridi-fusca; metatibiæ pallide fuscæ: proalæ subfuscæ; squamulæ et nervi fulva; stigma minutum; metalæ sublimpidæ. (Corp. long. lin. 1—$1\frac{1}{2}$; alar. lin. $1\frac{1}{4}$—$1\frac{3}{4}$.)

Var. β.—Metathorax viridis.

Var. γ.—Metatibiæ obscure fulvæ.

Var. δ.—Caput viridi-cyaneum.

Var. ε.—Pro- et mesotibiæ basi fulvo-fuscæ.

Var. ζ.—Thorax viridis, antice utrinque cyaneum.

Var. η.—Minutus: abdomen omnino cupreum: pro- et mesotibiæ fusco fulvæ.

Var. θ.—Thorax viridis, utrinque viridi-cyaneus: mesothoracis scutellum viridi-æneum: proalæ sublimpidæ.

Var. ι.—Caput, pro- et metathorax obscure viridia: mesothorax cupreus: abdomen nigro-cupreum: tibiæ omnes fuscæ.

Var. κ.—Thorax cupreus, utrinque viridis: alæ sublimpidæ.

Var. λ.—Thorax obscure æneo-viridis: alæ sublimpidæ.

Found near London.

Sp. 10. Tri. elegans. Mas. *Obscure viridis, præcedentibus gracilior, abdomen nigro-cupreum, antennæ nigræ, pedes fusco-fulvi, alæ fuscæ.*

Corpus gracile: caput obscure viride, postice æneo-viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1us. et 2us. nigro-virides: thorax obscure viridis, æneo varius: abdomen nigro-cupreum, basi obscure viride: pedes fusco-fulvi; coxæ virides; tarsi et protibiæ fulva: alæ fuscæ: squamulæ et nervi fulva; stigma minutum; metalæ pallidiores. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{1}{2}$; alar. lin. $1\frac{3}{4}$—2.)

Var. β.—Thorax omnino viridis: abdomen basi viridi-æneum: femora viridi-fusca.

Found near London.

Sp. 11. Tri. obscurus. Fem. *Æneo-viridis, abdomen cupreo varium, antennæ nigræ, pedes fusci, femora nonnunquam viridia, alæ sub-fuscæ, proalæ infumatæ.*

Caput viridi-cyaneum: oculi ocellique picei: antennæ nigræ; articuli 1us. et 2us. æneo-virides: thorax æneo-viridis: mesothoracis scutellum cupreum: metathorax viridis: abdomen cupreum; segmentum 1um. læte viride, cupreo varium; 2um. 3um. et 4um. utrinque viridi-cyanea: oviductus rufus: pedes fulvi; coxæ virides; femora fusca; tibiæ fulvo-fuscæ; protarsi

obscure fulvi; meso- et metatarsi apice fusci: alæ subfuscæ; squamulæ et nervi fusca; stigma minutum; proalæ cujusque discus infumatus. (Corp. long. lin. $1\frac{3}{4}$—$2\frac{3}{4}$; alar. lin. $2\frac{1}{4}$—$3\frac{1}{4}$.)

Var. β.—Thorax viridis; scutellum viridi-æneum: abdominis segmentum 1um. cyaneum: femora viridi-fusca; tibiæ fuscæ.

Var. γ.—*Var.* β. similis: abdomen viridi-cyaneum; segmenta apice cuprea; 1um. micans, cupreo varium.

Var. δ.—*Var.* β. similis: protarsi fusci: meso- et metatarsi obscure fulvi.

Var. ε.—Thorax æneo-viridis: tibiæ et protarsi fulva: meso- et metatarsi pallidiores.

Var. ζ.—*Var.* β. similis: meso- et metatarsi fusci, basi fulvi.

May, August, and September; near London; Devonshire.

Sp. 12. Tri. contemptus. Fem. T. obscuro *affinis at brevior et latior. Æneo-viridis, abdominis discus cupreus, antennæ nigræ, pedes ferruginei, femora extus fusca, alæ subfuscæ.*

Caput viride: oculi ocellique rufo-picei: antennæ nigræ; articulus 1us. fulvus, apice viridi-fuscus: thorax viridi-æneus: prothorax utrinque viridis: mesothoracis scutellum cupreo varium: abdomen viride, cupreo varium; discus cupreus: pedes ferruginei; coxæ virides; femora extus fusca; genua fulva; meso- et metatarsi basi flavi, apice fusci: alæ subfuscæ; squamulæ et nervi obscure fulva; stigma minutum. (Corp. long. lin. 2; alar. lin. 3.)

Found at New Lanark, Scotland.

Sp. 13. Tri. atrovirens. Fem. T. obscuro *gracilior et obscurior. Nigro-viridis, abdomen cupreum, antennæ nigro-fuscæ, pedes fusci, alæ sublimpidæ.*

Corpus gracile: caput obscure viride: oculi ocellique rufo-picei; antennæ nigro-fuscæ; articulus 1us. viridi-fuscus: thorax obscure viridis: metathorax cyaneo-viridis: abdomen obscure cupreum, subtus et basi viridi-cyaneum: pedes fusci; coxæ virides; femora supra viridi-fusca; meso- et metatarsi basi fulvi: alæ sublimpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $1\frac{1}{2}$; alar. lin. $1\frac{3}{4}$.)

Found near London.

Sp. 14. Tri. dolosus. Mas et Fem. *Cupreus, thoracis latera viridia aut cyanea, antennæ* mari *nigræ*, fem. *nigro-piceæ, pedes fulvo-fusci, alæ limpidæ.*

Mas.—Caput obscure viride: oculi ocellique rufo-picei: antennæ nigræ; articuli 1us. et 2us. virides: thorax viridi-æneus: prothorax utrinque viridi-cyaneus: mesothoracis latera anteriora et metathorax viridia: abdomen nigro-cupreum, basi nitentius: sexualia fusca: pedes fulvi; coxæ æneo-virides; femora fusco-ænea; metatibiæ fuscæ; meso- et metatarsi basi flavi: alæ limpidæ; squamulæ et nervi fulva; stigma minutum.

Fem.—Caput viride: antennæ nigro-piceæ; articuli 1us. et 2us. ænei: thorax cupreus; latera anteriora cyaneo viridi et purpureo varia: metathorax læte viridis, utrinque purpureus: abdomen nigro-cupreum, basi viride. (Corp. long. lin. 1—$1\frac{1}{4}$; alar. lin. $1\frac{1}{4}$—$1\frac{1}{2}$.)

Var. β.—*Fem.* caput cyaneo-viride: antennæ pallidiores; articulus 1us. æneus, basi et subtus fulvus: meso- et metatarsi flavi, apice fusci.

Var. γ.—*Fem.* metathorax cyaneus: mesotibiæ fuscæ.

Found near London.

Sp. 15. Tri. hirticornis. Mas. *Thorax quam præcedentibus brevior, proalis nervus cubitalis radiali angulum obtusiorem fingens. Cupreus cyaneo varius, antennæ nigro-piceæ hirtæ, pedes fusci, tarsi flavi, alæ limpidæ.*

Caput et thorax cuprea: oculi et ocellique rufi: antennæ nigro-piceæ, pilis fulvis hirtæ; articuli 1us. et 2us. virides: prothorax, metathorax et mesothoracis latera cyanea: abdomen nigro-cupreum: pedes fusci; coxæ virides; femora viridi-fusca; protarsi fulvi; meso- et metatarsi flavi, apice fusci: alæ limpidæ; squamulæ et nervi fulva; stigma minutum. (Corp. long. lin. $\frac{2}{3}$—$\frac{3}{4}$; alar. lin. 1—$1\frac{1}{4}$.)

Var. β.—Caput cyaneum: prothoracis discus cupreus.

Found near London.

Genus—Isosoma.

Isos. vacillans. Mas. I. longulo *paullo validius, antennæ et alæ latiores.*

Atrum: *Eurytomæ* speciebus nonnullis simillimum: antennæ corporis dimidio longiores: prothoraci macula utrinque rufa, minima:

genua et tarsi picea: alæ fere limpidæ; nervi nigro-fusci. (Corp. long. lin. $1\frac{3}{4}$; alar. lin. $2\frac{1}{2}$)

May; on grass in woods; near London.

Isos. brevicolle, (Haliday.) Mas. *Præcedenti simile at validius, antennæ crassiores, alæ latiores.*

Atrum: antennæ latæ, corporis dimidio paullo longiores: abdomen thorace brevius, fere planum: tarsi nigri: alæ limpidæ; nervi picei. (Corp. long. lin. $1\frac{3}{4}$; alar lin. $2\frac{1}{2}$.)

Found on sand-hills, at Port Marnock, by Mr. Haliday.

Isos. brevipenne. Fem. I. angustato *similis, alæ breviores, angustiores.*

Atrum, angustum: abdomen thoracis longitudine: genua et tarsi picea: alæ subfuscæ, breves, angustæ; nervi fusci. (Corp. long. lin. 1; alar. lin. 1.)

Found near London.

Genus—Eurytoma.

Eur. fumipennis. Mas et Fem. *Atra, tarsi rufi, alæ fuscæ.*

Mas.—Antennæ graciles, corporis dimidio multo longiores: genua rufa: alarum nervi picei.

Fem.—Multo brevior et latior. (Corp. long. lin. $1\frac{1}{4}$—$1\frac{1}{2}$; alar. lin. $1\frac{2}{3}$—$1\frac{3}{4}$.)

June; Windsor Forest. New Forest, Hampshire.

Genus—Decatoma.

Dec. mesomelas. Fem. *Flava, antennæ metathorax abdominisque dorsum nigra, alæ limpidæ, macula apud stigma quadrata minima.*

D. mellea brevior: caput inter ocellos et postice nigro-varium: oculi picei: ocelli rufi: antennæ apice piceæ; articulus 1us. flavus: mesothoracis scutum antice utriuque nigrum: ungues et pulvilli picei: alis nervi flavi, maculæ fuscæ. (Corp. long. lin. 1—$1\frac{1}{4}$; alar. lin. $1\frac{1}{4}$—$1\frac{1}{2}$.)

June; oak woods, at Lara in the county of Wicklow; Mr. Haliday. July; near London.

Dec. flavicornis. Mas et Fem. D. planæ *similitudine, antennæ flavæ.*

Nigra : oculi ocellique piceo-rufi : antennæ flavæ ; articuli 2us. 3us. et *mari* 1us. quoque picei : *fem.* caput antice et prothorax utrinque flava : petiolus apice fulvus : pedes picei ; trochanteres genua et tarsi flava : alæ limpidæ ; nervi flavi ; maculæ sublunatæ fuscæ, apud stigma quadratæ obscuriores. (Corp. long. lin. $\frac{3}{4}$—1 ; alar. lin. 1—$1\frac{1}{4}$.)

June ; oak woods, at Lara in the county of Wicklow ; Mr. Haliday.

Dec. aspilus. Fem. *Nigra, subtus fulva, alæ immaculatæ.*

Caput antice et subtus fulvum : oculi ocellique piceo-rufi : thorax subtus fulvus : prothoracis latera fulvo varia : abdomen subtus fulvum, basi supra utrinque fulvo maculatum : pedes fulvi ; femora et tibiæ nigro cingulata : alæ limpidæ ; nervi flavi, ad costam obscuriores. (Corp. long. lin. 1 ; alar. lin. $1\frac{1}{4}$.)

June ; Isle of Wight.

Genus—Callimome.

Call. rudis. Fem. C. quadricolori *similis at angustior, antennæ quoque et pedes graciliora.*

Viridis, parum nitens : caput inter ocellos mesothoracisque scutum viridi-ænea : oculi ocellique rufi : palpi flavi : antennæ nigræ ; articulus 1us. flavus : abdomen nigro-æneum, basi fulvum : oviductus abdomine dimidio longior : alæ fuscæ ; nervi concolores ; stigma parvum. (Corp. long. lin. $1\frac{1}{4}$; alar. lin. 2.)

June ; near London.

Call. Angelicæ. Fem. C. Geranii *coloribus at trientis tantum magnitudine.*

Torymus abdominalis ? *Boheman, Kongl. Vetens. Acad. Handl. för år* 1833.—" Habitat in Smolandia ad Anneberg rarius."

Viridis, nitens, subtus cyaneo-viridis : caput et mesothorax viridi-ænea : antennæ nigro-fuscæ ; articulus I^us^. flavus, apice supra

fuscus: gula flava: abdomen cupreo-æneum; segmentum 1um. flavum, basi viride: oviductus corpore paullo brevior: pedes flavi; meso- et metatarsis traminei, apice fusci: alæ limpidæ; nervi flavi; stigma concolor, minimum. (Corp. long. lin. 1—$1\frac{1}{4}$; alar. lin. $1\frac{1}{2}$—$1\frac{3}{4}$.)

Var. β.—Mesothorax viridis.

Var. γ.—Metapedum femora et tibiæ fulva.

Found by Mr. Haliday, on *Angelica sylvestris*, at Holywood, in Ireland.

Art. II.—*Wanderings and Ponderings of an Insect-Hunter.*

SERIES THE SECOND.

Chapter I.

[The Insect-Hunter speaketh of Darenth and Greenhithe.]

When I awoke the sun was high in the heaven. My companion of yesterday was gone; he had been out for hours. I had never before been on the spot; I knew nothing of the ground; however, I marched up the lane, and entered the wood. In this lane, be it recorded, I took *Drilus flavescens* and *Leptura 6-guttata*, besides a great number of *Criorhina oxycanthæ*, which till now I had never seen, and I well recollect how much I was struck by their velvety backs and beautiful appearance. Almost immediately on entering the wood there is a high sandy bank to the left; when I now first saw this bank, the beams of a cloudless sun fell full upon it, and the bees were at work mining it in all directions. I soon scrambled up nearly to the top. The black *Anthophora* was throwing the loose sand behind her from an exquisitely round hole, which she was digging with all her energies, whilst her white-nosed partner was pendulizing over and about her like a sentinel on guard. The sand-wasps were flitting about and entering their burrows, and the gorgeous